

## ABSTRACT

A stable high-precision current detection circuit capable of continuously detecting load current through a load with extremely reduced power loss. The current detection circuit has a power transistor and a current detection transistor that are fed with a common power supply voltage and a common switching signal. A buffer circuit is provided for supplying an idling current to the output node of the current detection transistor while realizing the same virtual potential at the output terminals of these transistors. Thus, the buffer circuit always functions as a class-A amplifier.